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ADVANCING QUALITY COMPETITION IN BIG DATA MARKETS

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ABSTRACT

The European Commission in its decision in *Google Search (Shopping)* found that a dominant search engine abused its market power by giving preferential treatment to its own related services over those of rivals. Conventional market mechanisms, it is supposed, can no longer correct the harm arising from such conduct. But there is disagreement in legal scholarship as to what this harm actually represents. This article maintains that the practice of self-favouring is best understood as an attempt to ward off product quality degradations in digital markets, which are difficult to repair purely by means of the consumer's sole ability to switch. Framed against Albert Hirschman's well-known work on *Exit, Voice, and Loyalty*, the Commission's ruling must be understood as recognition that rivalry stemming from smaller market actors will not necessarily prevent large platforms from degrading product quality, despite the consumer's ability to gain access to a variety of services that are only a click away. The article explicates the market's functioning and the available methods of recuperation against the backdrop of the available case law in this area, and expounds the Commission's findings in light of Hirschman's theory.

JEL: B31, D01, D11, D18, D21, D40, D50, D60, K21, K23, L15, L40

I. INTRODUCTION

Digital markets increasingly pose a conundrum for competition authorities and courts. Technological advances in the collection of users' data promise to be transformative, contributing to rapid innovation, the instant growth of new products, superior quality services, and personalized experiences. But the emergence of big data sometimes fails to enhance consumers'

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well-being, as a sequence of recent competition law investigations demonstrate.[1] Particularly in two-sided markets, where digital platforms vie to attract users by rendering services without charge while at the same time earning profits from advertisers through exchanging users' data for a fee, platform operators may have the incentive and the power to prioritize maximizing income over providing consumers with better quality offerings.[2]

The most significant recent instances in the scholarly debate around quality deterioration in online markets involve web search engines such as those offered by Amazon's marketplace or Google, which have been found to promote the companies' own products over competitors' listings, employing the platform's user data to gain a competitive advantage in the struggle over rival suppliers. The European Commission, in the recent case of *Google Search (Shopping)*, found that discriminatory treatment of competitors by a vertically integrated search engine may amount to an abuse under Article 102 TFEU (Treaty on the Functioning of the European Union) if a dominant search engine systematically gives prominent placement to its own comparison shopping service and demotes rival comparison shopping services in its search results. In the Commission's view, such conduct unduly diverts traffic away from the dominant company's competitors towards the dominant company's own related services, affording the dominant company's private label products an anticompetitive advantage.[3] In studying the legal standard by which the Commission assessed this practice, commentators have raised questions as to whether the Commission has gone so far as to stipulate a general responsibility for vertically integrated firms not to discriminate against their competitors in

[1] See in particular Case AT.39740—*Google Search (Shopping)*, 27 June 2017, C(2017) 4444 final; Case AT.40462—*Amazon Marketplace*, ongoing; European Commission Press Release: Commission Opens Investigation into Possible Anti-Competitive Conduct of Amazon, July 17, 2019 <https://europa.eu/rapid/press-release_IP-19-4291_en.htm> accessed 15 November 2019; Dutch Authority for Consumers and Markets Launches Investigation into Abuse of Dominance by Apple in its App Store, April 11, 2019 <https://www.acm.nl/en/publications/acm-launches-investigation-abuse-dominance-apple-its-app-store> accessed 15 November 2019; Italian Antitrust Authority Press Release: Amazon Investigation Launched on Possible Abuse of a Dominant Position in Online Marketplaces and Logistic Services, April 16, 2019 <https://en.agcm.it/en/media/press-releases/2019/4/Amazon-investigation-launched-on-possible-abuse-of-a-dominant-position-in-online-marketplaces-and-logistic-services> accessed 15 November 2019; Competition Authority of Luxembourg opens Platform Investigation, April 2, 2019 <https://concurrence.public.lu/dam-assets/fr/actualites/2019/2019-4-1-Communique-services-en-ligne-.pdf> accessed 15 November 2019.

[2] Maurice E. Stucke & Ariel Ezrachi, When Competition Fails to Optimize Quality: A Look at Search Engines, 18 *Yale Journal of Law and Technology*, 70 (2016); Maurice E. Stucke & Allen Grunes, *Big Data and Competition Policy* (OUP, 2016); D. Daniel Sokol & Roisin E. Comerford, Antitrust and Regulating Big Data, 23 *George Mason Law Review*, 1129, at 1142 (2016); Ioannis Lianos & Evgenia Motchenkova, Market Dominance and Search Quality in the Search Engine Market, 9 *Journal of Competition Law & Economics*, 419 (2013).

[3] Case AT.39740, *Google Search (Shopping)*, paras 589–643.

adjacent markets under Article 102 TFEU.[4] Particularly since the issuance of the Commission's Guidance Paper on abusive exclusionary conduct ('Guidance Paper'), prohibition of such behaviour is viewed as justified only when a) dealing with the integrated firm is 'objectively necessary' for rivals to compete effectively in the neighbouring market and b) the dominant company benefits from a competitive advantage that it has been granted by the State (for example, through the acquisition of exclusive rights or subsidies).[5] Any application of a lower threshold would seem to require a persuasive rationale for increased intervention. Yet the Commission itself dispensed with the strict criteria laid down in its Guidance Paper in *Google Search (Shopping)*, without putting forward an explicit justification for endorsing a different substantive legal standard. This article seeks to explore that missing justification by uncovering the circumstances the Commission might have contemplated. To this end, the article reviews a central issue that concerns an increasing number of competition investigations in digital markets: how should the law address product quality deteriorations when consumers have plenty of choices, and when disruption, market entry, and growth are close at hand? After all, where products or services are supplied at zero cost, quality represents an indispensable facet of competition so that any deterioration in the service's performance can be just as injurious to consumers as an increase in price in remunerated markets.[6]

At first glance, there are two different, yet similarly acceptable, responses to that issue. On the one hand, one might contend that information-driven online markets will inescapably correct themselves. The basic theory is that if people have choices and there are better substitutes, they simply head for the alternative. As a platform's user numbers on the free side of the market drop, revenue on the advertising side declines, so that the firm is compelled to look for a course and method that will correct the errors that have led consumers to

[4] Ibid., paras 644–652; see, for example, Ioannis Kokkoris, The Google Saga: Episode I, 14 *European Competition Journal*, 462 (2018); John T. Lang, Comparing Microsoft and Google: The Concept of Exclusionary Abuse, 39 *World Competition*, 5 (2016); Eduardo A. Valdivia, The Scope of the 'Special Responsibility' upon Vertically Integrated Dominant Firms after the Google Shopping Case: Is There a Duty to Treat Rivals Equally and Refrain from Favouring Own Related Business?, 41 *World Competition*, 43 (2018).

[5] Guidance on the Commission's Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, OJ 24 February 2009, C 45/7, paras 81–82.

[6] OECD, *Quality Considerations in Digital Zero-Price Markets*, (2018); Maurice E. Stucke, Should We Be Concerned About Data-Opolies?, 2 *Georgetown Law Technology Review*, 275 (2018); Ariel Ezrachi & Maurice E. Stucke, The Curious Case of Competition and Quality, 3 *Journal of Antitrust Enforcement*, 227 (2015); Nils-Peter Schepp & Achim Wambach, On Big Data and Its Relevance for Market Power Assessment, 7 *Journal of European Competition Law & Practice*, 120 (2015); Cédric Argenton & Jens Prüfer, Search Engine Competition With Network Externalities, 8 *Journal of Competition Law & Economics*, 73 (2012).

move on.[7] This is the image associated with the market as a wholly competitive arrangement where adjustments in the wealth of firms are completely the result of fundamental changes or relative improvements. Any decline in the performance of one firm is countered by an increase in the performance of another so that overall resources will be allocated more efficiently.[8] On the other hand, in concentrated marketplaces, a decline in a firm's performance may be wasteful, and this threat is sometimes best addressed and remedied by the law.[9] Competition policy has paid less attention to deteriorations in product quality, however, specifically when large platforms compete with one another and quality degradations are brought about by idiosyncratic aspects of the market which are mutable and which fail to cause enduring, harmful swings in cost and market structure.[10]

Precisely this issue lies at the heart of Albert Hirschman's well-known work on *Exit, Voice, and Loyalty*. Hirschman's question is: how can quality degradations in firms be forestalled? Although long neglected, the concerns surrounding quality degradations in search engine markets correspond well with Hirschman's notorious classification between exit and voice. Exit is the kind of device that the greater part of economic theory and modern competition policy are built upon. As Hirschman puts it: 'The customer who, dissatisfied with the product of one firm, shifts to that of another, uses the market to defend his welfare or to improve his position; and he also sets in motion market forces which may induce recovery on the part of the firm that has declined in comparative performance'.[11] Voice, on the other hand, is the counterpart of exit: '[I]t implies articulation of one's critical opinions rather than a private, "secret" vote in the anonymity of [the market]; [it] is direct and straightforward rather than roundabout'.[12] Voice, as opposed to exit, implicates expression of the customer's disappointment to the firm so that the firm takes part in an assessment of the basis of and possible remedies for the customer's dissatisfaction.[13]

[7] For an overview see Greg Sivinski, Alex Okuliar & Lars Kjolbye, Is Big Data a Big Deal? A Competition Law Approach to Big Data, 13 *European Competition Journal*, 199 (2017); Michael A. Salinger & Robert J. Levinson, Economics and the FTC's Google Investigation, 46 *Review of Industrial Organization*, 25 (2015).

[8] Catherine Tucker, The Implications of Improved Attribution and Measurability for Antitrust and Privacy in Online Advertising Markets, 20 *George Mason Law Review*, 1025 (2013); Mark Armstrong, Competition in Two-Sided Markets, 37 *RAND Journal of Economics*, 668 (2006).

[9] A. Michael Spence, Monopoly, Quality, and Regulation, 6 *Bell Journal of Economics*, 417 (1975).

[10] Maureen K. Ohlhausen & Alexander P. Okuliar, Competition, Consumer Protection, and The Right [Approach] to Privacy, 80 *Antitrust Law Journal*, 121 (2015); Nathan Newman, Search, Antitrust, and the Economics of the Control of User Data, 31 *Yale Journal on Regulation*, 401 (2014).

[11] Albert O. Hirschman, *Exit, Voice, and Loyalty. Responses to Decline in Firms, Organizations, and States* (HUP, 1970), at 15.

[12] Ibid., at 16.

[13] Ibid., at 4, 16.

Competition law has for the most part worked to emphasize the consumer's exit option, and the legal treatment of search engine markets is no exception. In a particularly vivid illustration of this stance, two prominent commentators noted that 'consumers can always switch to substitute search engines instantaneously and at zero cost',[14] which 'constrains [search engines'] ability and incentive to [take] anticompetitive [action]'.[15] Consumers 'can navigate directly to websites due to the [Internet's] open architecture',[16] and 'there are numerous search engines on the Internet, [so that users] can – and frequently do – switch among search engines'.[17] According to the predominant view, if a quality degradation occurs, consumers have the opportunity to switch to a different segment—they may exit the market—and inferior market actors will lose customers while competitors with superior offers will attract them. Competition law commentary therefore overwhelmingly accepts endorsement of a high threshold for legal intervention when vertical discriminatory conduct by a dominant company is to be assessed.[18] Furthermore, if market concentration is high and quality competition deteriorates as a result, breakups or structural remedies that aim to support the availability of exit are endorsed as the 'cleanest way' to realign an industry's incentives to accommodate consumers' wants successfully.[19]

Despite this emphasis on exit, competition law also incorporates voice—a less-well-ordered notion of consumer influence—which gives rise to distinct levels of assistance, all the way from enabling consumers to 'choose differently' to their ability to 'directly initiate adjustment' in the firm's terms and conditions of agreement.[20] 'Choosing differently' commands competition agencies and courts to help put in place a market structure that permits consumers to acquire their favoured goods from distinct vendors, in distinct purchasing

[14] Robert H. Bork & J. Gregory Sidak, What Does The Chicago School Teach About Internet Search and The Antitrust Treatment of Google?, 8 *Journal of Competition Law & Economics*, 663, at 665 (2012).

[15] Ibid.

[16] Ibid., at 669.

[17] Ibid.

[18] See Giuseppe Colangelo & Mariateresa Maggiolino, Data Protection in Attention Markets: Protecting Privacy through Competition?, 8 *Journal of European Competition Law & Practice*, 363 (2017); Renato Nazzini, Google and the (Ever-stretching) Boundaries of Article 102 TFEU, 6 *Journal of European Competition Law & Practice*, 301 (2015); Pablo I. Colomo, Exclusionary Discrimination Under Article 102 TFEU, 51 *Common Market Law Review*, 141 (2014); see also Herbert Hovenkamp, *Is Antitrust's Consumer Welfare Principle Imperiled?* (2019) <https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=2987&context=faculty_scholarship> accessed 15 November 2019; Lang, op. cit. *supra* note 4.

[19] A comprehensive overview is provided by Tim Wu, *The Curse of Bigness. Antitrust in the New Gilded Age* (Columbia Global Reports, 2018).

[20] Adrian Kuenzler, *Restoring Consumer Sovereignty. How Markets Manipulate Us and What the Law Can Do About It* (OUP, 2017), at 173–174, 183–186.

contexts, and at distinct terms and conditions of sale (voice).[21] 'Direct consumer influence' involves some features of the case law on abusive practices of a dominant company which bestow upon consumers the ability to help move the firm's burden of inertia to adjust terms and conditions of agreement, and to produce a decision with some precedential weight on a configuration of the product's design that consumers truly desire (voice).[22] With this range of possibilities in mind, voice is a less straightforward concept than exit and can produce distinct adjustments on the part of the firm, depending on what consumers request. Most crucially, it addresses the issue of how an undertaking can discern and correct its lapses and return to its previous quality standards. Voice is thus increasingly important in concentrated marketplaces where there is no price and where quality considerations are predominant. This article submits that the Commission's condemnation of a dominant search engine's preferential treatment of its own related services is a key instance of users being given an opportunity to express their views towards the firm, *albeit indirectly through administrative practice*, so as to help the declining company to recover. Rather than relying on prospective shifts of relative advantage caused by users who are supposed to cease consuming the dominant undertaking's product, the Commission's findings articulate consumer dissatisfaction through an authority to which the firm's administration is subordinate or is compelled to listen. But the constructive opportunities linked with the market's voice option and the ability of consumers to exercise agency in their persisting argument with the firm are the real benefits of voice, benefits which are overlooked when exit is supposed to be the sole avenue for consumers to follow.[23] This article accounts for the limited ability of exit to restore quality in data-driven marketplaces. It makes the point that whereas exit is the most important avenue for competition law to pursue in ordinary circumstances, voice is essential in helping quality competition to prevail. So far, the discussion around vertical discriminatory abuses has not been framed in terms of exit and voice. However, if Hirschman's categories are borne in mind, it becomes plain that quality degradations may best be addressed by tweaking the balance of institutional incentives so as to underpin voice in place of exit.

[21] By this it is meant that the extent to which competition law is enforced consumers may be motivated to choose differently in different market settings, see Adrian Kuenzler, Competition Law Enforcement on Digital Markets—Lessons from Recent EU Case Law, *Journal of Antitrust Enforcement* (2019). However, it is generally the role of regulation rather than competition law to structure markets with a view to securing a particular outcome for society, Niamh Dunne, *Competition Law and Regulation. Making and Managing Markets* (CUP, 2018).

[22] Ibid.; Adrian Kuenzler, *Direct Consumer Influence—The Missing Strategy to Integrate Data Privacy Preferences into the Market* (2019) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3395928> accessed 15 November 2019.

[23] Hirschman, op. cit. *supra* note 11, at 2. This does not presuppose that consumers speak with one voice that can be discerned and then represented through administrative practice. Rather, voice stands for the creation of effective avenues for consumers to intimate opposition with the firm when, in their view, product quality declines, see Part V below.

The article is arranged as follows. Part II explicates the facts lying beneath the Commission's investigation, summarizes the Commission's decision, and highlights the main ideas presented in this article. Part III describes Hirschman's notion of exit and voice and explains how that notion relates to the workings of digital markets. Part IV looks at the available case law on vertical discriminatory abuses. It situates *Google Search (Shopping)* within that case law and suggests the ways in which the Commission's view of self-favouring is better explained not by a theory of exit but as a notion based on voice. Part V turns to one final observation stemming from Hirschman's theory, suggesting that the consumer's loyalty offers an additional reason for the approach adopted by the Commission. Part VI concludes.

II. THE EU COMMISSION'S INVESTIGATION IN *GOOGLE SEARCH (SHOPPING)*

In *Google Search (Shopping)*, the European Commission fined Google €2.42 billion for positioning and displaying its own comparison shopping service more favourably vis à vis competing comparison shopping services in its own generic search results. In investigating Google's market position in general internet search, the Commission found Google to be dominant throughout the European Economic Area (EEA), exceeding market shares of 90% in all EEA countries since 2008, or 2011.[24] Between 2002 and 2004, Google launched its comparison shopping service as a separate product operating as a standalone website under the brand name 'Froogle', subsequently renamed as 'Google Product Search' and later referred to as 'Google Shopping'. Google Shopping returns product offerings from merchant websites in response to users' queries to enable users to compare them.[25] As Google Shopping performed relatively poorly in the comparison shopping market and failed to succeed in ranking highly in Google's generic search results, Google systematically began giving prominent placement to Google Shopping so that it appeared above those services that Google's generic search algorithm considered most relevant in response to consumers' product-related queries. Simultaneously, Google demoted rival comparison shopping services to lower search entry ranks in its general search results; consequently, even the most highly placed rival comparison shopping services appeared on average only on page four or further down in Google Search. As a matter of fact, Google ceased to subject its own comparison shopping service to Google's generic search algorithms, and competing comparison shopping services were prone to being relegated in Google's search results by a dedicated set of rules described as 'Panda' algorithm.[26]

[24] Case AT.39740, *Google Search (Shopping)*, paras 271–284.
[25] Ibid., paras 26–35.
[26] Ibid., paras 378–98.

Owing to the manner in which consumers use a given platform, Google's practice had a significant effect on competition in comparison shopping markets. In particular, the visibility of search results, including their display, positioning, and page rank, demonstrably affects a user's search behaviour.[27] According to the Commission's findings, users are more likely to click on the first three to five generic search results on the first general search results page and pay little or no attention to the remaining products.[28] Typically, the first result on the first general search results page receives 34% of all clicks on average whereas the first result on the second page only receives less than 1% of all clicks.[29] Since it is the rank, not the relevance of search results which attracts most clicks by users,[30] and since users have been shown to trust in the perceived editorial integrity of Google's generic search results and in Google's brand,[31] Google's prominent positioning and display of its comparison shopping website dramatically increased website traffic in Google's own comparison shopping service while severely decreasing traffic for competitors, thereby diverting click-through rates and revenue from competitors to Google's services themselves.[32] In this manner, Google's market dominance as a web search engine caused a substantial shift in internet traffic that led to significant gains in market share for Google Shopping at the expense of rivals so that Google's conduct had 'the potential to foreclose competing comparison shopping services ... [and to] reduce the ability of consumers to access the most relevant comparison shopping services'.[33] Accordingly, Google was held to have abused its market dominance by failing to subject its comparison shopping service to the same ranking mechanisms as competing comparison shopping websites.[34] Along with the imposition of a fine, the Commission ordered Google to apply the same processes and methods to position and display rival comparison shopping services in Google's search

[27] Ibid., paras 397–398 ('The main difference between the way that Google's own comparison shopping service and competing comparison shopping services are displayed in Google's general search results pages is that specialized search results from Google's comparison shopping service are displayed with richer graphical features, including pictures and dynamic information. Those richer graphical features lead to higher click-through rates'.).

[28] Ibid., paras 455.

[29] Ibid., paras 457.

[30] Ibid., paras 460, 535.

[31] Ibid., paras 312, 546.

[32] The Commission made it clear that website traffic stemming from Google Search enables comparison shopping websites to compete in several ways: to generate revenue, to collect users' data, to improve the relevance of their own results, to experiment and innovate through learning, and so forth, ibid., paras 444–451. Furthermore, the Commission found that website traffic from Google Search cannot effectively be replaced through other sources of internet traffic, ibid., paras 539–542.

[33] Ibid., paras 593–597.

[34] Ibid., paras 378–398.

results pages as those which it gives to Google Shopping, leaving it for Google to propose an effective remedy and to ensure compliance with the decision.[35] Google appealed the Commission's ruling, bringing an action for annulment before the General Court by which it challenged the Commission's finding, alleging, among other things, that Google's activities were aimed at improving its own services rather than at diverting internet traffic to Google's comparison shopping website and that the contested decision violates the legal standard for assessing Google's practice.[36]

In the sections that follow, this article makes three principal arguments to explain the Commission's findings based on Hirschman's theory, whose underlying themes need to be clarified upfront. First, in a situation where the market fails to provide the highest quality possible, voice is a convincing paradigm to *explain and justify* a competition agency's intervention. The Commission's ruling exemplifies this point. Some commentators understand the Commission's proceedings against Google largely as the result of complaints by firms, not by users of Google's search function, and even at the level of shaping the appropriate remedy, the ongoing procedure hardly seems to foresee any involvement by consumers themselves. Convincing as this argument may be, this article suggests that—as a result of the Commission's intervention—competition agencies *also* give space to the consumer's actual voice, and some authors, including Hirschman, have suggested that we might see voice as working in this way, that is, as voice intermediated by a competition agency or a court.[37] In fact, while complaints by firms might be the predominant concern of competition agencies in addressing quality degradations in markets where there is no price, the Commission's investigation also testifies to a growing apprehension that the assurance of a high level of quality cannot be left to consumers' switching alone. As a result, voice is likely to be put forward when there is a strong interest in assuring quality rather than allowing products of widely varying quality to be marketed. If such variability is both inevitable (because of varying algorithm quality, availability, variety, and veracity of data) and rejected (because of its calamitous economic or social effects), the maintenance and improvement of quality in search requires the advancement

[35] Ibid., paras 693–755.

[36] Case T-612/17, *Google and Alphabet v Commission*, OJ 2017 C 369/37, 30 October 2017 (judgment pending).

[37] Hirschman, op. cit. *supra* note 11, at 2; Gillian K. Hadfield, Robert Howse & Michael J. Trebilcock, Information-Based Principles for Rethinking Consumer Protection Policy, 21 *Journal of Consumer Policy*, 131, at 159 (1998); Omri Ben-Shahar & Carl E. Schneider, *More Than You Wanted to Know: The Failure of Mandated Disclosure* (PUP, 2014), at 3–5, 185–190.

of voice.[38] Consequently, voice must be seen both as a by-product *and* a primary effect of the Commission's condemnation of self-favouring, and therefore at least as an intermediate way of pushing the search market's quality equilibrium to a superior level. Second, looking at the issue from the angle of voice, doctrinally, the article suggests that there is a parallel line of case law for finding an abuse that does not require the requested input (for example, Google Search) to be indispensable, and that voice, in such circumstances, permits one to justify application of an alternative threshold for finding an anticompetitive abuse. Employment of such a standard seems warranted where consumer switching turns out to be *ineffective* to prevent quality from deteriorating or where *ease of consumer switching* will result in further quality deteriorations. To this extent, the article's conceptual considerations of why it matters that competition law may target quality deteriorations based on voice are intertwined with contentious doctrinal issues that the existing case law breeds. Third, the article proceeds from the implicit understanding that a dominant search engine's preferential treatment of its own related services may impact on the quality of search. On the conventional view, quality deteriorations are merely a possible *effect* of a dominant undertaking's exclusionary conduct. From the vantage point of voice, however, deteriorations in quality must be seen as a *component part* of that (exclusionary) conduct.[39] Adoption of this perspective entails several advantages for competition law enforcement under conditions where there is no price; to begin with, the issue as to how competition law ought to treat the practice of self-favouring taps into a debate that has sparked controversy within competition law scholarship over several decades. The issue is whether the law ought to protect consumers or, rather, to encourage competition.[40] If it were not consumers but competitors who were complaining about a dominant search engine's discriminatory behaviour, must competition agencies also demonstrate consumer harm to be able to condemn such alleged exclusionary conduct? Viewed from the vantage point of voice, it becomes plain that to the extent that product quality is affected consumers *are* inevitably harmed by a search engine's self-preferential treatment. What

[38] This problem is particularly acute when quality affects the newspaper publishing industry, see Damien Geradin, *Complements and/or Substitutes? The Competitive Dynamics Between News Publishers and Digital Platforms and What It Means for Competition Policy*, TILEC Discussion Paper 2019-003 (2019) <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3338941&dgcid=ejournal_htmlemail_tilburg:law:economics:center:(tilec):law:economics:research:paper:series_abstractlink> accessed 15 November 2019.

[39] For an overview of the conventional view see John M. Yun, Understanding Google's Search Platform and the Implications for Antitrust Analyses, 14 *Journal of Competition Law & Economics*, 311 (2018); Damien Geradin & Dimitrios Katsifis, An EU Competition Law Analysis of Online Display Advertising in the Programmatic Age, 15 *European Competition Journal*, 55, at 89–91 (2019); Geradin, op. cit. *supra* note 38; see also Regulation (EU) 2019/1150 of 20 June 2019, OJ 2019 L 186/57, para 2.

[40] Herbert Hovenkamp, Whatever Did Happen to the Antitrust Movement?, 94 *Notre Dame Law Review*, 583 (2018).

is more, the costs initially associated with investigating quality deteriorations in online markets may ultimately inure to the benefit of the investigated firm rather than impairing it or benefiting competitors that might not always seem to deserve such support. Importantly, however, voice stands for the proposition that the market's supply ought to be based on consumers' preferences not only when firms compete on grounds of price but also when quality is the main (or even the sole) parameter of competition. Here, the demotion of or refusal to display links to competitor vertical websites in highly commercial categories may well add up to conduct that will have lasting negative effects on the welfare of consumers and the promotion of progress. Specifically, Part V of this article shows that exit may cause harm to the market as a whole—beyond the injury inflicted by a firm that lowers the quality of its products—and may generate its own negative externalities. Seen from the vantage point of voice, competition law may reasonably address such externalities, aside from those consequences brought about by the firm's exclusionary conduct. To be sure, it may be difficult to work out what 'good quality search' represents. However, adopting the lens of voice includes the advantage that we may avoid such definitional predicaments altogether. The notion of product quality is multifaceted, convoluted, and complex, and distinct quality aspects may be relevant in every single case.[41] Voice, however, simply entails that users can *expect* from a dominant search engine that vertical search results are listed on the basis of a measure (whatever this measure will be) that has been applied equally to the ranking of competitors' products. Only on the basis of such expectations are users able to assume correctly that they have been given an actual choice between a variety of options that reflect the benefits of commercial innovation.[42]

III. THE NOTION OF EXIT AND VOICE PERTAINING TO DIGITAL MARKETS

In his book *Exit, Voice, and Loyalty*, Hirschman deploys the instruments of political scientists and economists to deepen traditional economic analysis of how competitive behaviour by firms and organizations can be swayed through either exit or voice. Hirschman's fundamental distinction works along

[41] See José T. Llanos, A Close Look on Privacy Protection as a Non-Price Parameter of Competition, *European Competition Journal* (2019). For instance, poor personalization might be perceived as a quality issue while poor data privacy could also be conceived as one—these issues may even be mutually incompatible.

[42] The notion of voice plays an obvious role in cases of exploitative abuse. One of Hirschman's most notorious examples relates to quality deteriorations in education. If educational quality drops, the most quality-conscious parents will exit, making the quality of education worse as the less quality-conscious parents will stay on, and those parents are less likely to voice concerns. Similarly, if search engine quality drops and the savvier users switch, overall quality will deteriorate even more. One can immediately see that, here, voice may be more effective than exit.

the following lines: a firm's customers who sense that there is a quality deterioration in the firm's products may renounce their affiliation with the organization (exit) or make an attempt to communicate criticism, protest, or request the reinstatement of quality (voice). The possibility for consumers to exit is characteristic of the customary notion of competition where there are several offers and consumers have the ability to switch. Exit, under these circumstances, not only affords consumers freedom of choice but also represents an avenue of influence. If enough consumers switch, exit is expected to cause revenue losses to the firm, with the result that this pressure will induce the company to adjust to lower price or to improve quality. Take a platform operator that provides search engine services to consumers as an example. Once the quality of the search engine's services begins to decline, or if some users think another search engine is better, users may switch to an alternative search engine operator. Search engines that suffer the loss of consumers in this manner are compelled to act in response to the market's signals or they will eventually be driven out of business. Exit thereby affords consumers the proper protection, communicating to the platform an instruction to supply what users truly desire. Consumers could also employ voice, however, a less blatant reaction that empowers users to reprimand, to find fault with the search engine's defects, and to impel the operator to adjust to deliver the most pertinent results.[43]

A. Hirschman's Notions of Exit and Voice

The notion of voice is particularly helpful when we consider how competition is thought to produce incentives for firms to address quality first, and to initiate the firm's recuperation. To explicate this point, it is important to take note of two separate but closely interrelated observations that squarely contradict the conventional paradigm: a) exit as a viable solution for combating quality deteriorations in firms may *go awry* in several instances, and b) the *availability of exit* may, under some circumstances, lead to further quality deteriorations through a decline in voice. I will address each observation in turn.

First, exit as a recuperation mechanism may fail to provide an appropriate market response if a quality deterioration is known instantly to all consumers in a market so that the quality decline causes the bulk of consumers to switch. Such switching would result in an instant drop in the faltering firm's income, and the firm would be beyond revival.[44] Conversely, if the market consists only of a small number of firms that simply take in one another's disgruntled customers, the effect of consumer switching will be cancelled out, and exit

[43] Hirschman, op. cit. *supra* note 11, at 42–43 (contemplating the possibility of voice through consumer movements *and* institutions to wield an influence over the firm).

[44] Ibid., at 22–25.

will no longer provide companies with corresponding market signals.[45] What is more, in concentrated marketplaces, exit may fail to be a workable path of influence for consumers to express their discontent either because there are no better options for quality-conscious customers or because there are no viable substitutes at all.[46] The upshot of these observations is that voice—straightforward efforts to adjust the firm's actual strategy—may be required to remedy a decline in the quality of products and services in the market.[47]

Second, the availability of exit might under some circumstances reduce the effectiveness of voice by silencing consumers' complaints. If switching is easy, those consumers most concerned about quality deteriorations will be the first to leave the firm. Once the most quality-conscious consumers have left, the remaining consumers will be those who are heedless of quality and who will be unlikely to bother to voice, while the consumers who have switched to a superior alternative will no longer need to voice at all.[48] However, once voice *is* available as a possible avenue of consumer influence, customers need to have at least some opportunity to switch—or, if exit is unattainable as an option, they need to be able to express their views effectively, if at all possible by dint of the regulator—or else the firm will fail to respond.[49] As a matter of course, a company will cease to care about customers' complaints if consumers lack an effective means to express their criticism profitably.

On the whole, these insights demonstrate that in many instances exit may be unsuccessful in reinstating product quality, so that the market's most conventional mechanism—the consumer's ability to switch—will fail to enable firms to convalesce. Exit, as Hirschman reveals, may then impart a semblance of competitive order in which consumers' switching to a rival's offers precludes the market from recuperating.[50]

B. The Pertinence of Hirschman's Theory for the Operation of Digital Markets

The interplay between exit and voice feeds into a tenable account of how quality deteriorations in search engine markets take place. On the *supply*

[45] Ibid., at 26–29. This does not contradict standard microeconomic theory or entail that competition based on exit is futile. Rather, Hirschman's observations point to the possibility of 'market failure' also in terms of situations where exit fails to restore efficiency, that is, where small departures from the perfectly competitive model afford firms some latitude in varying quality and there is a mixture of alert and inert customers.

[46] Ibid.

[47] Ibid., at 29.

[48] Ibid., at 44–46, 59–60.

[49] Ibid., at 42–43. This is why, in concentrated markets, competition law ought not solely to focus on the possibility of exit but also to enable the use of voice.

[50] Ibid., at 27. By this is meant the restoration of quality although there may be many alternative options on the market. The problem is thus not so much the working of competition as a process but that firms fail to respond to consumers' preferences.

side, unequal access to data among market actors and the manner in which multisided business models work may lead to quality deteriorations for users in web search engines specifically. This is due primarily to the features of digital marketplaces, where the value of a platform's data grows significantly by the volume, variety, and veracity of information collected and the velocity at which such information is produced, administered, and assessed.[51] Search engine operators that have found ways to access large amounts of user data in a timely fashion frequently possess a competitive advantage over smaller rivals even if the latter's algorithms are better. The former can employ their data to develop a more proficient set of rules through bigger, more diverse sets of trial and error, and can in turn produce more pertinent search results.[52] In addition, while the main dimension of competition is quality in markets where goods and services are rendered free of charge, search engine operators typically generate income by selling users' data (and advertising space) to advertisers.[53] Here, competitive market forces create incentives for platform operators to lower quality on the free side of the market below levels that users desire when doing so will increase a platform's income on the paid market side (for example, the sale of an increased amount of user data and information to advertisers affords a higher profit to the platform but may simultaneously lower users' experiences).[54] If a market is composed of heterogeneous platforms of distinct sizes that offer various degrees of product quality, large platform operators with high data-processing abilities can generate higher profit margins on the advertising side of the market than small platform operators can with low data-processing abilities.[55] Platform operators such as Facebook, Amazon, and Google have accumulated a vast user base and have developed profitable technologies that are difficult to replicate.[56] As a result of such advancements, these firms have been capable of spreading out into a broader range of services in separate markets, which has further enlarged the volume and variety of the data they collect, stimulating an upsurge in productivity, innovation, and

[51] Stucke & Grunes, op. cit. *supra* note 2, at 15–28; Stucke & Ezrachi, op. cit. *supra* note 2; Schepp & Wambach, op. cit. *supra* note 6, at 122.

[52] Viktor Mayer-Schönberger & Kenneth Cukier, *Big Data: A Revolution That Will Transform How We Live, Work, and Think* (John Murray, 2013).

[53] Armstrong, op. cit. *supra* note 8; Jean-Charles Rochet & Jean Tirole, Platform Competition in Two-Sided Markets, 4 *Journal of the European Economic Association*, 990 (2003); Bernard Caillaud & Bruno Jullien, Chicken & Egg: Competition among Intermediation Service Providers, *RAND Journal of Economics*, 309 (2003).

[54] OECD, *The Role and Measurement of Quality in Competition Analysis*, (2013); Maurice E. Stucke & Ariel Ezrachi, op. cit. *supra* note 2, at 71–77; Lars Wiethaus, Google's Favouring of Own Services: Comments from an Economic Perspective, 6 *Journal of European Competition Law & Practice*, 506 (2015).

[55] Stucke & Grunes, op. cit. *supra* note 2, at 21–22.

[56] Scott Galloway, *The Four. The Hidden DNA of Amazon, Apple, Facebook and Google* (Penguin, 2017).

quality improvement.[57] In this manner, the profit margins of large firms can increase more rapidly from the sale of user data and information to advertisers than the profit margins of smaller rivals, and this chain of events is set in motion by the heterogeneity of companies and the features of data-driven marketplaces, and not necessarily by adjustments within firms.[58] As a matter of fact, a firm's average profit margin will decline when market concentration grows, that is, when the market's quality leaders increasingly compete against similarly large, data-efficient companies.[59] Innovation in a service where the incumbent firm is highly efficient generates lower income than if rivals are small and inefficient. And with higher market concentration and declining profit margins within firms, platforms' incentives to invest in product quality will be further deterred. What is more, market leaders that have a bigger, more diverse user base may generate better-quality search results even if they intentionally lower quality by a small but significant amount.[60] This in turn will trigger an incentive for all market actors to underinvest in quality, degrading quality standards across the market.[61] On the whole, market leaders have more to gain from profit maximization than from improving product quality, and the odds are low that the laggards will ever draw near. Consequently, product quality will fall and profit maximization increase.[62]

[57] Pamela Jones Harbour & Tara I. Koslov, Section 2 in a Web 2.0 World: An Expanded Vision of Relevant Product Markets, 3 *Antitrust Law Journal*, 769, at 784 (2010).

[58] Ibid.; Wu, op. cit. *supra* note 19; Galloway, op. cit. *supra* note 56; Stucke & Grunes, op. cit. *supra* note 2; Stucke & Ezrachi, op. cit. *supra* note 2; Schepp & Wambach, op. cit. *supra* note 6.

[59] Lianos & Motchenkova, op. cit. *supra* note 2, at 421–423, 427–428.

[60] Sokol & Comerford, op. cit. *supra* note 2, at 1142.

[61] Stucke & Ezrachi, op. cit. *supra* note 2, at 96–97.

[62] To be sure, the trade-off between price and quality competition is a question of degree for each firm's strategy, and the issue of 'slack'—the problem that firms that face decreased competitive pressure tend to aim at no more than satisfactory rather than at the highest possible rate of production—may well activate some counterforces. Quality leaders might, for instance, decide to compete among themselves on gaining market share, expanding their customer base, and gaining access to consumers' data to escape a race to the bottom in terms of price competition and declining product margins. But the tendency in data-driven marketplaces may well be the opposite. As Sergey Brin & Lawrence Page, The Anatomy of a Large-Scale Hypertextual Web Search Engine, 56 *Computer Networks*, 3825, at 3831–3832 (2012) explain: 'Currently, the predominant business model for commercial search engines is advertising. The goals of the advertising business model do not always correspond to providing quality search to users. For example, in our prototype search engine one of the top results for cellular phone is a study which explains in great detail the distractions and risk associated with conversing on a cell phone while driving. This search result came up first because of its high importance as judged by the PageRank algorithm, an approximation of citation importance on the web. It is clear that a search engine which was taking money for showing cellular phone ads would have difficulty justifying the page that our system returned to its paying advertisers. For this type of reason and historical experience with other media, we expect that advertising funded search engines will be inherently biased towards the advertisers and away from the needs of the consumers'. In addition, users may have trouble perceiving quality deteriorations, particularly if they fail to multihome due to loyalty and brand effects, see Part V below.

On the *demand side*, data-driven marketplaces may render consumer switching ineffective if, in response to a drop in quality, the bulk of consumers switch. Here, the leading firm will lack the opportunity to recuperate if it instantly loses the volume, variety, and veracity of data necessary to adjust its algorithms accordingly.[63] However, if only some consumers switch, the drops experienced by large firms in the available volume and variety of data may be so small that they may fail to perceive the pressure to adjust.[64] And consumer switching inevitably will fail to provide an effective signal to the firm in relation to its shortcomings if the firm can attract new users at the same time as existing customers leave.[65] In search engine markets, users may engage in multihoming between platforms, that is, they may simultaneously run identical queries on different search engines because quality among search engines may be heterogeneous or some search engines may outperform others on particular requests.[66] But the issue of whether users switch at all also depends on the availability of better quality substitutes. Under conditions where markets 'tip'—where the acquisition of a critical mass of users permits a platform to dominate until a rival market actor disrupts the status quo and becomes dominant itself—competitors are unlikely to get hold of better quality alternatives.[67] As two prominent commentators note, '[with less scale and] fewer trials, entrants have fewer opportunities to predict search terms, observe subsequent errors, and perceive trends (consumers' search terms relating to a hot topic). Entrants' ability to identify sites that consumers prefer is likely to remain inferior, leaving the entrant at a competitive disadvantage in attracting consumers and advertisers'.[68] As firms accumulate ever more search data, large search engines inevitably become entrenched as dominant platforms.[69] On the other hand, if exit is easy and within reach, those users who are most concerned about quality—those who most value speed, accuracy of results, relevance, personalization, and other quality attributes—will be the first to move to a superior alternative.[70] Smaller search engines may dedicate their business to specialized search functions—as is the case with purchase, entertainment, or travel-specific platforms such as Amazon, Spotify, Netflix,

[63] See Hirschman, op. cit. *supra* note 11, at 22–25.

[64] Michael Luca *et al.*, *Does Google Content Degrade Google Search? Experimental Evidence*, Harvard Business School Working Paper 16–035 (2015) <http://people.hbs.edu/mluca/SearchDegradation.pdf> accessed 15 November 2019.

[65] See Hirschman, op. cit. *supra* note 11, at 26.

[66] Stucke & Ezrachi, op. cit. *supra* note 2, at 99–101, 104

[67] Ratliff & Rubinfeld, Is There a Market for Organic Search Engine Results and Can Their Manipulation give Rise to Antitrust Liability?, 3 *Journal of Competition Law & Economics*, 517 (2014).

[68] Stucke & Ezrachi, op. cit. *supra* note 2, at 83–84.

[69] Jones Harbour & Koslov, op. cit. *supra* note 57.

[70] A frequently employed response by Google in relation to allegations that its behaviour was supposedly anticompetitive was that on the internet competition is just one click away, see Google's Larry Page: 'Competition is One Click Away', *Forbes*, 14 October 2012.

or Orbitz—which are better capable of attending to a particular consumer's needs. But if switching by quality-conscious consumers takes place, the market leader may lose a significant segment of users, along with the valuable feedback and data of users who might otherwise be in the best position through their online behaviour to help reverse the search engine's quality deterioration.[71]

In these cases—be it the loss of a market's quality leader or the prolonged experimentation of consumers with alternative options, all operating at lower quality levels—exit keeps consumers from complaining profitably. It directs their effort to the hunting for the nonexistent high-quality products that exit competition was assumed to create. The upshot is that voice—not exit—may play an important part in unsettling this self-sustaining cycle in which dominant platform operators are incentivized to invest more in maximizing profits and to crush ever-dwindling quality competition in their industry, a hypothesis that Hirschman's work contributes a great deal towards elucidating. However, since we naturally conceive of markets in terms of facilitating exit rather than promoting voice, competition law commentary has generally emphasized the consumer's ability to switch in data-driven marketplaces. Nevertheless, when switching is impracticable or ineffective, recovery on the part of the firm whose performance has deteriorated is best helped by *voice*—by affording agency to consumers through intensified administrative action.[72] The Commission's condemnation of self-favouring may well rest on such a rationale, but competition law commentary has for the most part criticized such condemnations for being at odds with the existing case law's legal standards. Against the backdrop of Hirschman's notorious distinction, we are in a

[71] See Hirschman, op. cit. *supra* note 11, at 47–49.

[72] Voice can take a number of forms; resort to voice typically assumes the form of a firm's customers spending time and effort to marshal some influence or bargaining power on the firm with whose products they are dissatisfied. Wielding power in this manner (in isolation or by way of collective action) is easier in markets with few customers than with many, and customers will be more likely to exert voice if they are wedged with expensive durable goods that disappoint them than with inexpensive, nondurable goods. Here, the establishment of consumer research organizations may for instance help consumers make their voices heard. But voice, once it has been recognized as a useful mechanism for keeping up the market's performance, may also take the form of institutional channels of communication for (groups of) consumers to express their dissatisfaction when they experience difficulty in doing so. Intensified administrative action by competition agencies is a response to this emergence of the consumer's voice when exit can no longer solve most of the 'sovereign' consumer's problems. While it is the competition agency that will investigate the outcomes of the company's conduct on consumer welfare, the primary effect of such consumer influence then is to improve product quality when consumer switching is unavailable or ineffective. To ensure that an agency's activities are carried out on behalf of consumers, competition agencies may ask a sample of customers what they desire, as competition authorities do when they run the so-called 'market test' with respect to commitments under Article 9 Regulation (EU) 1/2003 of 16 September 2002, OJ 2003 L1/1. The value for consumers to exercise voice in this manner can be determined by its worth in maintaining quality when the consumer's voice has been thwarted due to the increased cost of individual and collective action or, conversely, as a result of the anticipated rewards for successful administrative action, see Hirschman, op. cit. *supra* note 11, at 36–43. See also Part V below.

better position to evaluate such conduct, since integrating quality competition into digital markets requires the law to hold platforms accountable to their users' calls rather than merely to facilitate their ability to desert.

IV. THE AVAILABLE CASE LAW ON VERTICAL DISCRIMINATORY ABUSES

Once we recognize that voice stands for a constructive avenue of consumer influence, the issue is how the law defines the conditions under which vertical discriminatory behaviour amounts to an abuse. So far, competition law has not been cast as a device to restore quality. In particular, the Commission's decision in *Google Search (Shopping)* has been construed as providing a 'level playing field' in which firms can compete;[73] as imposing a 'duty of equal treatment' on vertically integrated dominant firms not to discriminate against competitors in neighbouring markets;[74] or as establishing a requirement of 'search neutrality' for internet platforms towards their users.[75] As a matter of practice, the risk of competition law liability must still be seen as an incentive for market actors to improve quality, but that prospect has not typically been associated with competition law's principal goals. Nevertheless, the law against exclusionary discriminatory conduct must be part of a broader assessment that concerns the main features of the relevant business strategy. When competition law performs its function of ensuring fair and free competition and protecting the welfare and interests of consumers by prohibiting and preventing abuse of dominant positions or market power, additional benefits inure to the larger market context within which competition law operates. These benefits do not necessarily consist in creating a level playing field, equal treatment, or search neutrality to the extent that competition law commentary has typically stressed. Instead, they suggest more subtle advantages of desirability, choice, and the encouragement of the consumer's preferred options. Hence, when a general duty not to discriminate, or search neutrality, cannot be put into effect, competition law enforcement may nevertheless help to improve quality as a main parameter of competition, given that price is no longer important.[76] Conversely, even when a duty of equal treatment or search neutrality is viewed as exceptionally appropriate under a particular set of circumstances, some acknowledgment of how the interplay between exit and voice involves quality ought to be given precedence in order for it to work as a check on unwarranted government interventions.[77] In short, the Commission's condemnation of self-

[73] See Colomo, op. cit. *supra* note 18, at 154.
[74] See Valdivia, op. cit. *supra* note 4, at 43–44.
[75] See Oren Bracha & Frank Pasquale, Federal Search Commission? Access, Fairness, and Accountability in the Law of Search, 93 *Cornell Law Review*, 1149 (2008).
[76] Ezrachi & Stucke, op. cit. *supra* note 6.
[77] Daniel A. Crane, Search Neutrality as an Antitrust Principle, 19 *George Mason Law Review*, 1199 (2012).

favouring does rest on a sound rationale but it may not be the one that is usually presupposed.

A. The Commission's Theory of Abuse in Relation to Self-Favouring

To appreciate the impact of the Commission's view with respect to a dominant search engine's vertical discriminatory abuse, one must first understand how competition agencies and courts determine such infringement. In classifying the nature of the practice of self-favouring, commentators have called for a resort to courts to determine benchmark notions of accountability for discriminatory conduct that may cause anticompetitive harm. Most observers seek to place such conduct into a category best dealt with through circumstances in which so called 'leveraging'—the method whereby a firm employs its dominant position in one market to perpetrate an abuse in a distinct, but directly associated, market—amounts to an anticompetitive injury.[78] Leveraging covers an extensive array of activities that may be viewed as neither harmful nor as beneficial in themselves.[79] Efforts to establish a clear liability threshold for leveraging abuses have thus drawn on a rich body of case law and legal literature to evaluate the forms in which such conduct manifests. This literature reveals that only the most severe types of discrimination fit securely in clearly established legal liability thresholds while at the same time there is a need to scrutinize the subtler types on a case-by-case basis.

To begin with, commentators have differed in their views as to whether vertical discriminatory conduct by a dominant company may be classified as a refusal to deal, a margin squeeze, or a tying practice.[80] Attempts to find an apt categorization for such practices are complicated by the fact that vertical discriminatory conduct may be based on *price* or *non-price* strategies—such as when the dominant vendor demands a higher price from competing merchants than from its own integrated business[81] or when it affords its private label brand a higher visibility on its shelves than those of rival manufacturers[82]—and are bound to vary with respect to the conduct's *gravity*—for example, where the merchant refuses to sell competitors' goods at all, or agrees to sell them, but at the same time reduces their availability.[83] Consider first the available case law in the European Union with respect to refusals by a dominant

[78] See only Andrea Amelio *et al*., Recent Developments at DG Competition: 2017/2018, 4 *Review of Industrial Organization*, 653 (2018); Stefan Holzweber, Tying and Bundling in the Digital Era, 14 *European Competition Journal*, 342 (2018).

[79] Robert O'Donoghue & Jorge Padilla, *The Law and Economics of Article 102 TFEU* (Hart, 2013), at 250–262.

[80] See Pinar Akman, The Theory of Abuse in Google Search: A Positive and Normative Assessment Under EU Competition Law, 2 *Journal of Technology Law & Policy*, 301 (2016).

[81] For an overview see Richard Wish & David Bailey, *Competition Law* (OUP, 2018), at 732.

[82] Ibid., at 697.

[83] Colomo, op. cit. *supra* note 18, at 146–147.

company to deal with its competitors, an extreme form of discrimination that results in third parties not being supplied or supplies being halted. The available case law suggests that behaviour by a dominant firm that amounts to a refusal to *start dealing* with a competitor constitutes an anticompetitive abuse only if doing business with the dominant company is indispensable at a minimum to carry out trade in the adjacent market in which the third party requiring access operates.[84] Such a high threshold for intervention limits the scope for refusals to deal with a competitor to a restricted set of conditions under which such behaviour is considered unlawful. After all, a dominant company has no general obligation to transact business with its rivals. Any such obligation would contradict entrenched precepts of freedom of contract and private property, including a dominant undertaking's incentives to invest and innovate.[85] However, the law does not impose the requirement that dealing with a dominant company be indispensable if such a company terminates a pre-existing relationship with a rival, that is, where a firm simply *ceases to deal* with an existing customer. For such conduct to amount to an abuse, it is sufficient that it 'risks eliminating all competition on the part of this customer',[86] that is, if it establishes the likelihood of 'eliminat[ing] a trading party from the relevant market'.[87] Commentators have argued that preferential treatment by a dominant search engine of its own related services that directs search traffic (and thus revenue) away from competitors and towards the search engine's own related offers cannot be considered a refusal to supply an input to a pre-existing customer since arguably there is no trading relationship between the search engine and any other website where users obtain information in response to their queries.[88] The consequence of this

[84] Case C-7/97, *Oscar Bronner GmbH & Co. KG*, [1998] ECLI:EU:C:1998:569, paras 45–46. Refusals to supply intellectual property rights require an exceptionally high threshold, see Joined Cases C-241/91 P and C-242/91 P, *Radio Telefis Eireann (RTE) and Independent Television Publications ltd (ITP) ('Magill')*, [1995] ECLI:EU:C:1995:98, paras 54–56 (requiring the prevention of the appearance of a new product for which there is potential consumer demand and the elimination of all competition on the secondary market); Case C-418/01, *IMS Health GmbH & Co. OHG*, [2004] ECLI:EU:C:2004:257, paras 28–30, 38; but see Case T-201/04, *Microsoft Corp.*, [2007] ECLI:EU:T:2007:289, para 229, 647–653 (requiring the hindrance of the maintenance of effective competition and the discouragement of competitors from developing new innovations).

[85] Lang, op. cit. *supra* note 4, at 15–18; Nazzini, op. cit. *supra* note 18, at 308–309.

[86] Joined Cases 6 and 7/73, *Istituto Chemioterapico Italiano S.p.A and Commercial Solvents Corporation*, [1974], ECLI:EU:C:1974:18, para 25.

[87] Case C-27/76, *United Brands Company and United Brands Continentaal B.V.*, [1978], ECLI:EU:C:1978:22, para 183.

[88] Akman, op. cit. *supra* note 80, at 355; Nazzini, op. cit. *supra* note 18, at 307 (adding that this must hold particularly if the dominant search engine displays its rival's services in its own search results *without omitting them altogether*); similarly Marina Lao, Search, Essential Facilities, and the Antitrust Duty to Deal, 11 *Northwestern Journal of Technology and Intellectual Property*, 275, at 278 (2013); Torsten Körber, *Common Errors Regarding Search Engine Regulation—And How to Avoid Them*, 6 ECLR, 239, at 242 (2015).

view is that indispensability *is* required for a competition authority to condemn a dominant search engine's preferential treatment of its own related services.

Attention has also been turned to another form of abuse whereby a vertically integrated firm harms its rivals by charging prices in the upstream and/or downstream market that preclude downstream competitors from carrying on business profitably.[89] An example of this practice, typically labelled 'margin squeeze', is a pricing policy applied by a telephone network owner under which the spread between its sale prices for broadband connection services to end users and the prices charged to competitors for access to the network itself does not allow competitors to cover the costs that the network operator had to incur to distribute those services to end users.[90] Some commentators have argued that this practice essentially adds up to a ('constructive') refusal to deal in that the offer by the dominant firm is of such a nature that the supplier understands it to be unacceptable, unreasonable, or unduly delaying.[91] Looking at margin squeeze law in this way would entail that an abuse ensues only if access to the wholesale product is indispensable for the sale of the retail product precisely because such conduct, in effect, represents an outright refusal to deal.[92] However, the CJEU (Court of Justice of the European Union) has defined margin squeeze by a dominant undertaking as simply '[being] capable of having anti-competitive effects on the markets concerned'.[93] Doing business with the vertically integrated firm, therefore, does not need to be indispensable for competitors in the dominant company's downstream market. Rather, it is sufficient for a competition authority or court to establish that a margin squeeze at least has a potentially harmful effect.[94] Although internet search engines usually charge competitors a flat fee for being listed in their generic

[89] See above all Friso Bostoen, Online Platforms and Vertical Integration: The Return of Margin Squeeze?, 6 *Journal of Antitrust Enforcement*, 355 (2018); Akman, op. cit. *supra* note 80, at 323–325.

[90] Case C-52/09, *Konkurrensverket v TeliaSonera Sverige AB*, [2011], ECLI:EU:C:2011:83, paras 4–8, 32.

[91] See Alison Jones & Brenda Sufrin, *EU Competition Law* (OUP, 2016), at 496; see also Guidance Paper, op. cit. *supra* note 5, paras 79.

[92] But see Dennis W. Carlton, Should 'Price Squeeze' Be a Recognized Form of Anticompetitive Conduct?, 4 *Journal of Competition Law & Economics*, 271 (2008); J. Gregory Sidak, Abolishing the Price Squeeze as a Theory of Antitrust Liability, 4 *Journal of Competition Law & Economics*, 279 (2008).

[93] Case C-52/09, *TeliaSonera*, para 72.

[94] See also Jonathan Faull & Ali Nikpay, *The EU Law of Competition* (OUP, 2014), at 480–489; O'Donoghue & Padilla, op. cit. *supra* note 79, at 399–403; Damien Geradin, Anne Layne-Farrar & Nicolas Petit, *EU Competition Law and Economics* (OUP, 2012), at 250–269. One view explains this approach to margin squeeze cases to the extent that issues related to collective dominance (for example, two possible networks to which the new player could gain access to the downstream market) are affected. In Joined Cases T-68/89, T-77/89 and T-78/89, *SIV*, [1992], ECLI:EU:T:1992:38, para 28, the Court of First Instance stated that 'participants in a tight oligopoly [. . .] enjoy a degree of independence from competitive pressures that enables them to impede the maintenance of effective competition, notably by not having to take account of the behaviour of the other market participants'.

search results, as well as a variable fee payable on every occasion a user clicks through to the dealer's website,[95] most scholars of competition law have emphasized the ways in which search algorithms are *biased* in favour of the dominant company's own and against competitors' downstream services.[96] Preferential treatment of a search engine's own related business, according to this view, is to be understood as an instance of discrimination to be found in 'applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage' (Article 102 lit. c TFEU) rather than as an application of different price conditions to the dominant company's downstream customers.[97]

But application of the general prohibition of Article 102 lit. c TFEU on discriminating against competitors in adjacent markets would give rise to an altogether different legal standard, triggered by the dominant company's exclusionary intent rather than by evidence of anticompetitive foreclosure.[98] If such an intent can be established, the firm's application of less favourable terms and conditions to competitors must presumably be perceived as anticompetitive unless the dominant company can present an objective justification for the favouring of its own business.[99] Early theorists thought this standard appropriate for assessing a dominant search engine's favouring of its own related services, and considered the rules set out by the CJEU for the evaluation of tying, which essentially follow the same framework as those applicable to vertical discriminatory conduct.[100] Yet in the interim, some consensus has emerged that Article 102 lit. c TFEU cannot represent the proper scope of analysis for such behaviour, for the wording of the Article necessitates that the discrimination ensue not merely between the dominant firm and its customers but among 'other trading parties' and no one else.[101]

This survey demonstrates that any attempt to classify a dominant search engine's favouring of its own related services into pre-existing legal cate-

[95] Case AT.39740, *Google Search (Shopping)*, para 168; Bostoen, op. cit. *supra* note 89, at 372–373.

[96] See Chiara Fumagalli, Massimo Motta & Claudio Calcagno, *Exclusionary Practices* (CUP, 2018), at 604–610.

[97] See Case C-525/16, *MEO*, [2018], ECLI:EU:C:2018:270; Valdivia, op. cit. *supra* note 4, at 59–62.

[98] Case 85/76, *Hoffmann-La Roche & Co. AG*, [1979], ECLI:EU:C:1979:36, paras 90–91; Case T-228/97, *Irish Sugar PLC*, [1999], ECLI:EU:T:1999:246, paras 179–180; Joined Cases C-395/96 P and 396/96 P, *Compagnie Maritime Belge SA and Dafra-Lines A/S*, [2000], ECLI:EU:C:2000:132, para 119.

[99] Case C-62/86, *AKZO Chemie BV*, [1991], ECLI:EU:C:1991:286, paras 140, 146.

[100] Benjamin Edelman, Does Google Leverage Market Power Through Tying and Bundling?, 11 *Journal of Competition Law & Economics*, 365 (2015); Akman, op. cit. *supra* note 80, at 344–355.

[101] Nazzini, op. cit. *supra* note 18, at 307–308; Damien Geradin & Nicolas Petit, Price Discrimination under EC Competition Law: Another Antitrust Doctrine in Search of Limiting Principles?, 2 *Journal of Competition Law & Economics*, 479 (2006); however, there is well-established case law that applies Article 102 lit. c TFEU to vertical discrimination cases, see Case 6/72, *Europemballage Corporation and Continental Can Company Inc.*, [1973], ECLI:EU:C:1973:22 and *infra* notes 115–119.

gories converges such behaviour into a complex amalgam of refusal to deal, margin squeeze, or tying practice. The fact-specific nature of such conduct affords an inadequate epistemic fit for pre-existing legal categories. Most commentators therefore agree that deployment of self-promoting algorithms that divert the visibility of search results (including their display, positioning, and page rank) and internet traffic away from competitors and towards the dominant company's own related products constitutes a *sui generis* abuse.[102] Any determination of the legal relevance threshold under Article 102 TFEU to be applied to such behaviour must then be made not on nominalist but on substantive grounds. However, the view has also emerged that in making this determination, indispensability *ought* to apply.[103] For one thing, competition law would otherwise inflict upon a dominant platform a positive duty to act on behalf of its rivals. Prescription of the manner in which dominant platforms display and rank their search results, even if such visibility has a demonstrable impact on users' behaviour,[104] is seen as an undue interference in a dominant undertaking's commercial freedom that deters investment incentives and enables competitors to gain access to the dominant company's facility without contributing to the advancement of the resource in the first place.[105] Moreover, commentators who support deployment of the high indispensability threshold for assessing a search engine's self-promoting algorithms follow an approach that implicates an argument of consistency. The idea is that for reasons of predictability, a cohesive baseline ought to apply to *all* discriminatory conduct, particularly under circumstances where different formal embodiments manifest as an essentially equivalent type of behaviour.[106] Although the available case law authorizes a lower baseline standard for administrative action in margin squeeze cases, the condemnation of margin squeeze is still viewed as based on a requirement of indispensability, inflicted, however, by some regulatory or factual circumstances. For instance, industry sectors involving infrastructure that is very expensive to reproduce and in which it is essential for competitors to transact business with the holder of this infrastructure (as in liberalized network industries involving energy, telecommunications, or postal services) may limit considerably the growth of effective competition. The Commission appears to consider this especially likely where regulation already imposes an obligation to supply

[102] See only Romano Subiotto, David R. Little & Romi Lepetska, The Application of Article 102 TFEU by the European Commission and the European Courts, 9 *Journal of European Competition Law & Practice*, 476, at 479 (2018); Thomas Hoppner, Felicitas Schaper & Philipp Westerhoff, Google Search (Shopping) as a Precedent for Disintermediation in Other Sectors—The Example of Google for Jobs, 9 *Journal of European Competition Law & Practice*, 627 (2018).

[103] See Colomo, op. cit. *supra* note 18, at 153; Nazzini, op. cit. *supra* note 18, at 309.

[104] Case AT.39740, *Google Search (Shopping)*, paras 454–476.

[105] Lang, op. cit. *supra* note 4, at 15–16, 22–23; Colomo, op. cit. *supra* note 18, at 154; Nazzini, op. cit. *supra* note 18, at 308; Case C-7/97, *Oscar Bronner GmbH & Co. KG*, [1998], Opinion of A.G. Jacobs, ECLI:EU:C:1998:264, paras 56–57.

[106] Colomo, op. cit. *supra* note 18, at 157–158.

on the dominant undertaking and where the undertaking has acquired or developed the resource with the assistance of the State.[107] Indeed, most cases where indispensability was not explicitly required may fit into such a framework. *Deutsche Telekom*,[108] *TeliaSonera*,[109] and *Telefónica*[110] involved operations in the telecommunications sector; *Deutsche Post*[111] and *Deutsche Bahn*[112] concerned postal and railway infrastructure; and other proceedings referred to the gas transmission market.[113] Imposing indispensability (explicit or implied) as a requirement for all vertical discrimination cases is thus seen to be consistent with the notion that competition law may force undertakings to deal on equal terms with their competitors only under extraordinary circumstances.

B. The Benefits of Voice for Assessing Vertical Discriminatory Abuses

As a result of such principled attempts to fit the existing patchwork of administrative practice into a coherent framework that permits normative clarification and consolidation, there is considerable doubt as to whether a dominant search engine's preferential treatment of its own related services could validate administrative action according to Article 102 TFEU under circumstances where transacting business with an integrated company may have a purely exclusionary effect or may put rivals at a competitive disadvantage (and thus is not indispensable as set forth by the case law on refusals to deal). But the Commission's decision in *Google Search (Shopping)* does precisely that—it authorizes agency intervention under conditions that dispense with the requirement that being listed in a nondiscriminatory manner is 'objectively necessary' for rivals to compete.[114] It thereby further obfuscates the commonly recognized liability standard according to which vertical discriminatory conduct is meant to be assessed. At the same time, there is no articulated rationale for the Commission's lowering of its legal liability threshold. This section addresses this gap, appraising, in particular, the legal and economic consequences of the Commission's approach to condemning a dominant search engine's self-preferential treatment.

[107] Guidance Paper, op. cit. *supra* note 5, para 82.
[108] Case C-280/08 P, *Deutsche Telekom AG*, [2010], ECLI:EU:C:2010:603.
[109] Case C-52/09, *TeliaSonera*.
[110] Case C-295/12 P, *Telefónica SA and Telefónica de España SAU*, [2014], ECLI:EU:C:2014:2062.
[111] 2001/892/EC: Commission Decision of 25 July 2001 relating to a proceeding under Article 82 of the EC Treaty (COMP/C-1/36.915—*Deutsche Post AG—Interception of cross-border mail*), OJ 2001, L 331/40.
[112] Case T-229/94, *Deutsche Bahn AG*, [1997], ECLI:EU:T:1997:155.
[113] COMP/39.402, *RWE-Gas Foreclosure* Commitments Decision 18 March 2009, [2009] OJ C 133/10, IP/09/410.
[114] Guidance Paper, op. cit. *supra* note 5, para 81.

On close examination, the rule expressed by the Commission draws on a body of case law established by the CJEU that recognizes that an undertaking with a dominant position in a 'raw materials market', which, with the object of reserving such 'raw material' for selling its own 'derivatives', abuses its dominant position in the upstream market by refusing to supply a customer that itself is a manufacturer of such 'derivatives'. The gist of the Court's argument recurs in every case. In *Commercial Solvents*, the CJEU stated that a dominant supplier of aminobutanol that is in a position to control the substance's availability to manufacturers of drugs, cannot, just because it decides to start producing these same drugs in competition with its customers, act in such a way as to eliminate their stock.[115] In *Napier Brown – British Sugar*, a dominant purveyor of granulated sugar, which also sold derivative retail sugar, was found to abuse its dominant position by refusing to supply granulated sugar to an existing customer and competitor in the retail market.[116] Other cases involved decisions of dominant undertakings refusing to supply spare parts and services for their products in aftermarkets with a view to carrying out those services themselves. *Hugin* concerned a manufacturer of cash registers refusing to supply spare parts outside of its distribution network.[117] *Volvo* and *Renault* addressed refusals by car manufacturers to license intellectual property rights to independent repairers to protect their own dealers.[118] And *IBM Maintenance Services* dealt with delayed access and the provision of unreasonable terms and conditions for the supply of computer spare parts so as to exclude a dominant hardware manufacturer's downstream rivals.[119] As stated by the CJEU in *Commercial Solvents*, if a transfer of market power from the primary to the secondary market occurs, it does not matter whether competitors in secondary markets have 'an urgent need for [the raw material] or whether [they are able to] reorganize [their] production in good time'.[120] That is, the product or service does not need to be objectively necessary for

[115] Joined Cases 6 and 7/73, *Istituto Chemioterapico Italiano S.p.A and Commercial Solvents Corporation*, para 25.

[116] 88/518/EEC: Commission Decision of 18 July 1988 relating to a proceeding under Article 86 of the EEC Treaty (Case No. IV/30.178 *Napier Brown – British Sugar*), OJ 1988, L 284/41, para 64.

[117] Case 22/78, *Hugin Kassaregister AB*, [1979], ECLI:EU:C:1979:138, paras 15–26.

[118] Case C-238/87, *AB Volvo*, [1988], ECLI:EU:C:1988:477; Case C-53/87, *CICRA and Renault*, [1988], ECLI:EU:C:1988:472, para 16 (some commentators argue that these cases are about narrowly defined aftermarkets so that here, indispensability is implied).

[119] Case COMP/C-3/39692—*IBM Maintenance Services*, 13 December 2011, C(2011) 9245 final.

[120] Joined Cases 6 and 7/73, *Istituto Chemioterapico Italiano S.p.A and Commercial Solvents Corporation*, para 26. However, commentators have inferred from the findings of fact that because Commercial Solvents was the sole viable supplier of raw materials, *in effect*, indispensability was required. See on the argument of 'implied indispensability' text to *infra* notes 123–129.

rivals to be able to compete effectively on a downstream market.[121] These cases do not fit into a coherent framework that may yield clarity around the precise legal category for exclusionary discrimination to be subject to a precondition of indispensability. Instead, their nature arguably rests on the view that indispensability is required solely for outright refusals to deal where a business relationship has never been established with competitors before so that there can be no 'transfer', or 'leverage', of market power in the absence of a primary market. A dominant search engine's preferential treatment of its own related services does not seem to resemble such a situation. It is better placed within a condition where a dominant company *alters* its behaviour, that is, where a dominant company disrupts a previous business relationship only for the purpose of gaining an anticompetitive advantage in the adjacent market. Indeed, according to the Commission's ruling, Google was found to have *changed* its algorithms to promote its own related services over those of its competitors.[122] Since there is no established precedent that demands indispensability for leveraging market power in this manner, the Commission arguably concluded that Google's behaviour looked more like the situation in *Commercial Solvents*, where a dominant company terminates an existing business relationship with a customer or subsequently modifies its nature, rather than a set of circumstances in which the dominant company has not previously supplied at all.

What is more, some commentators argue that most exclusionary discrimination cases that do not necessitate indispensability may still be viewed as in line with the jurisprudence and commentary of the CJEU that call for indispensability, either because the dominant undertaking was the sole viable supplier of raw materials, or because the respective cases were about (after)markets that were defined so narrowly that indispensability is implied.

[121] This is at least implicit in the Court's statement that an undertaking being in a position to control the supply of derivatives cannot, just because it decides to start manufacturing these derivatives, act in such a way as to eliminate their competition. Particularly, according to the Court, it does *not* matter that a) the undertaking ceased to supply because the sale of such derivatives would have stopped in any case, b) whether the supplied company still had large quantities of this product which would enable it to reorganize its production in good time, and that c) the supply of such derivatives would affect the possibilities of producing the products in question by the supplier itself, ibid., at paras 25–28.

[122] Case AT.39740, *Google Search (Shopping)*, paras 358, 443, 467–469. The General Court in Case T-851/14, *Slovak Telekom*, [2018], ECLI:EU:T:2018:929, paras 95–129, seems to reinforce the proposition that indispensability ought *not* to be required in every refusal-to-deal scenario when it states that the judgments in *Bronner* and *Commercial Solvents* 'are compatible', ibid., at para 99. Particularly, according to the Court, the way in which a 'refusal to deal' is used as a way to bring about a particular restriction of competition matters for the determination of whether indispensability is a necessary condition for intervention. As a result, the Court explicitly distinguishes between the sale of an input to competitors on a downstream market and the supply of finished goods for distribution or resale, and whether the dominant undertaking decides to terminate the supply of goods that it previously supplied to the customers in question or whether the access seekers had never previously been supplied by the dominant firm.

Here, the Commission's Guidance Paper provides instructive advice to the extent that the Commission sets forth the general conception under which termination of an existing supply arrangement is more likely to be found abusive than a de novo refusal to supply. For example, the requested input must automatically be seen as indispensable if the dominant undertaking had previously been delivering to a competitor and the latter had made specific investments so as to use the subsequently refused input. Indispensability is also thought to be fulfilled by the fact that the dominant undertaking had previously thought it to be in its interest to deal with a competitor such as when the dominant undertaking's previous provision of the input adequately compensated for its original investment.[123] As stated above, against a similar backdrop, the CJEU has stressed that the law on margin squeeze does not require indispensability explicitly but such law may in fact be seen as being governed by an implied indispensability precept.[124] Commentators who oppose this view have argued that if a dominant undertaking may lawfully refuse access to its facility in the first place, it makes no sense to impose upon an integrated undertaking antitrust liability for granting access at unfavourable conditions.[125] The dominant company could preclude antitrust liability for such conduct simply by refusing to grant access to the facility at all. But the CJEU seems to assume that refusal to grant access at unfavourable conditions does not always implicate the possibility of an outright refusal to deal ('it cannot be inferred [...] that the conditions to be met in order to establish that a refusal to supply is abusive must necessarily also apply when assessing the abusive nature of conduct which consists in supplying services or selling goods on conditions which are disadvantageous').[126] Indeed, condemnation of a search engine's preferential treatment of its own related services may encompass the adverse effects of leveraging in a manner in which simple scrutiny of outright refusals to deal cannot, particularly when it is unworkable for a search engine *not* to list competitor websites in its search results at all but there are nonetheless conditions that support the dominant undertaking's transfer of market power—such as when competitors' websites are demoted to lower ranks and their visibility and traffic are decreased—to exclude rivals from the secondary market.[127] Such behaviour may increase the value of the

[123] Guidance Paper, op. cit. *supra* note 5, para 84. In making this statement, the Commission primarily seems to look at the issue of incentives to invest. However, there is nothing in the Guidance Paper that prevents one from reading the Commission as not always requiring indispensability—as this flows naturally from the case law stating that a refusal to deal is an abuse under exceptional circumstances.

[124] Case C-52/09, *TeliaSonera*, para 72; Case C-295/12 P, *Telefónica SA and Telefónica de España SAU*, paras 118–119; Case T-398/07, *Kingdom of Spain*, [2012], ECLI:EU:T:2012:173, paras 76–78.

[125] OECD, *Margin Squeeze*, (2009), at 8; Nazzini, op. cit. *supra* note 18, at 309; Jones & Sufrin, op. cit. *supra* note 91, at 426–429.

[126] Case C-52/09, *TeliaSonera*, paras 55, 58.

[127] Bostoen, op. cit. *supra* note 89, at 363; Valdivia, op. cit. *supra* note 4, at 61.

dominant platform disproportionately to the detriment of rivals, along with the volume and variety of user data acquired, and rival platforms could be successful only if a similar number of users were attracted within a short period of time. Indispensability may then well be implied, just as if an operator of a bottleneck in a networked industry has acquired an indispensable resource, so that access to the input must be deemed objectively necessary to carry on trade in a neighbouring market.[128] Following this line of reasoning, the Commission arguably could not rule out that a dominant search engine's preferential treatment of its own related services would eliminate *all effective competition* in the downstream market. As the Commission stated, Google's conduct was 'capable of leading competing comparison shopping services to *cease* providing their services'—a circumstance that inevitably must ensue where the desired resource is (at least implicitly) indispensable.[129]

Beyond these doctrinal quarrels, the Commission's analysis of the practice of self-favouring is probably the most appropriate place to review the application of Hirschman's notion of how *quality competition* works. What if the criteria that drove the Commission's reasoning acknowledged the benefits of voice set out above—the manner in which consumer influence performs the identical function as the goal of increasing product quality? At a minimum, from this vantage point, we would be in a position to provide a more robust defence for the Commission's view that intensified administrative action under Article 102 TFEU is warranted within the meaning of the case law on the termination of existing supply arrangements when it comes to analysing a dominant search engine's self-preferential treatment of its own related services. In the view of most theorists, the policies implemented by Google could ultimately not amount to anticompetitive harm, and most of the work on the issue has scrutinized the practice of self-favouring through the lens of 'non-discrimination'. At this juncture, commentators have rightly pointed out that the creation of an enforced level playing field might induce competitors to claim nondiscriminatory access to a dominant firm's products rather than innovating themselves, and would therefore lead to a reduction in incentives to compete, to increased transparency, and to the associated likelihood of collusion, thereby eliminating all the benefits and synergies of vertical integration.[130] Consistent with this view, commentators have further pointed out that the injury must be located somewhere else, and have speculated as to whether the practice of self-favouring may consist in a violation of a principle

[128] Jacques Crémer, Yves-Alexandre de Montjoye & Heike Schweitzer, *Competition Policy for the Digital Era* (Brussels, 2019), at 62–63.

[129] Case AT.39740, *Google Search (Shopping)*, paras 593–594 (emphasis added); Guidance Paper, op. cit. *supra* note 5, para 81, 83, 85; Case C-418/01, *IMS Health GmbH & Co. OHG*, paras 40–52; Colomo, op. cit. *supra* note 18, at 157.

[130] Colomo, op. cit. *supra* note 18, at, 153–155.

of 'search neutrality'.[131] Recognition of such a principle, however, is heavily contested as it is the stated purpose of a search engine to select as well as possible, based on the search terms entered, among the results that best match users' needs. The objective of a search engine consists precisely in making a selection, and there can hardly be an objectively correct result that will be chosen as a basis for comparison. Search criteria imposed by a competition authority or court, or even the prescription of what is supposed to be the correct 'default', could scarcely be more 'neutral' than the actual criteria chosen by the search engine itself.[132] While the 'best' result is always one that suits users' preferences to the greatest extent, a search engine can deliver only one first best result, and search engines constantly have to adapt to improve their algorithms so as to stay apace with consumers' desires. The production of a 'search bias', thwarting the capacity of users to obtain their preferred outcomes, can therefore barely amount to an anticompetitive injury, or else the manner in which search engines perform must constantly be suspicious.[133] A more useful way to understand the Commission's treatment of self-favouring is therefore as an attempt to *restore quality*, that is—as the Commission remarks itself—'to render a possible degradation by [search engines] in the quality of [their] general search service unprofitable'[134] and to repair the 'incentives of [search engines] to improve the quality of [their own related services when they do not] need to compete on the merits with competing … services'.[135] That notion portrays what both the Commission and Hirschman were aiming at and aids us to settle the doctrinal puzzle that the practice of self-favouring breeds.

Once Hirschman's framework is recalled, it is straightforward to understand that the authorization of voice through intensified administrative practice represents an integral part of the Commission's effort to restore quality. As suggested previously, in data-driven marketplaces, the availability of likely alternatives for switching may render it less rather than more probable that a flaw in a dominant company's products or services will be rectified rather than entertained. If users, in response to a quality deterioration, are easily able to switch, the respective quality deterioration may be sustained more permanently than if users were given an opportunity to mount pressure on the firm to modify the product's design to the extent that quality is re-established.

[131] Frank Pasquale, *The Black Box Society. The Secret Algorithms That Control Money and Information* (HUP, 2015).

[132] Crane, op. cit. *supra* note 77; Boris P. Paal, *Internet Search Engines and Antitrust Law*, 11 JIPLP, 298 (2016); James Grimmelmann, *Some Skepticism about Search Neutrality*, in Berin Szoka & Adam Marcus (eds), *The Next Digital Decade: Essays on the Future of the Internet* (Techfreedom, 2010).

[133] Florian Wagner-von Papp, Should Google's Secret Sauce be Organic?, 16 *Melbourne Journal of International Law*, 1 (2015).

[134] Case AT.39740, *Google Search (Shopping)*, para 313.

[135] Ibid., para 596.

What is more, in data-driven marketplaces, exit by some users may fail to exhibit its expected effects as the dominant company may not even be in a position to take note of the fact that some users have switched so long as the dominant platform commands a sufficient volume and variety of data. On the other hand, if switching is possible, the most quality-conscious users will arguably be the first to switch and move to the rival platform that presumably delivers superior results. But such switching may lead to an even greater deterioration in quality if the most quality-conscious consumers would have been those best placed to bring the firm back to a path where it could have produced a significant upsurge in quality. Unlike with price changes, which give rise to a change in expenditure for *all* customers, a quality change may render the good or service more esteemed by one group of users, whereas other users might simultaneously come to find the good or service less appealing.[136] A platform's decision to allow quality to deteriorate might therefore either cause the firm to simultaneously lose and gain some users, or, if few or no substitutes exist, might cause satisfaction and dissatisfaction in distinct groups of consumers. It is precisely for that reason that the Commission's findings serve to validate the manner in which quality competition is pushed forward not just through exit, but through intensified administrative practice: by enabling quality-conscious consumers to stay on for some time and to compel the dominant company to listen, at the same time reducing users' discontent rather than merely enlisting the firm to maximize income.[137] To be sure, from the conventional point of view, the idea that in *Google Search (Shopping)*, the Commission essentially worked to integrate voice through minimizing users' lack of approval might seem counterintuitive. But Hirschman's observations reveal that voice may be superior to a market arrangement in which only the possibility of exit prevails and that intensified administrative practice may play an important part in incorporating quality competition under circumstances where consumer switching is impracticable or wasteful.[138]

The depiction of the practice of self-favouring in this manner also enables us to resolve some of the doctrinal issues the Commission's findings have produced. While the Commission's view towards self-favouring does not seem to rest on an explicit indispensability precept as does the related strand of outright refusal-to-deal cases introduced previously, against the backdrop of Hirschman's framework it seems entirely reasonable for a competition agency or a court to apply the same legal liability threshold as has been deployed in cases involving refusals to cease dealing, or margin squeeze practices, respectively. Just like in the Commission's Guidance Paper and a number of decisions relating to vertically integrated dominant firms in liberalized network industries whose economic features constrain considerably the capacity of new

[136] Hirschman, op. cit. *supra* note 11, at 48–50.
[137] Ibid., at 67–71.
[138] Ibid., at 72, 74.

entrants to replicate them, the incentives to maximize profits and sacrifice quality that data-driven marketplaces create, as well as the ways in which such markets render consumer switching ineffective, provide a compelling rationale for a corresponding baseline standard to apply. If a search engine's vertical discriminatory behaviour explicitly required proof of indispensability, an agency could scarcely intervene and the market's voice mechanism—helped by intensified administrative action—would be suppressed.[139] The market would then be left to rely on consumer switching, and quality deteriorations could not be addressed. On the other hand, if the legal condemnation of self-favouring truly contained a 'non-discrimination' or 'search neutrality' rule, a competition agency or a court would be required to pinpoint a distinct duty of equal treatment with respect to the particular outcomes users desire. Such an assessment would necessarily entail a selection between the dissimilar, at times even incompatible, preference orderings of users.[140] The qualification of self-favouring, however, does not have to rest on such an impracticable (and perhaps unattainable) condition. Instead, the practice is more straightforward to grasp when judged against the benefits of voice. Seen from this vantage point, an agency's intervention also enables users to express their views in their enduring fight against the firm's quality deterioration under circumstances where exit fails to work. The better way to comprehend the Commission's treatment of self-favouring is thus as an effort to clear the channels of consumer influence rather than as conceptualizing it as a violation of the manner in which the firm's product has been designed.

This argument does not suggest that reframing the Commission's treatment of self-favouring in this way unequivocally transforms it into practicable legal doctrine. Commentators have wrestled with the Commission's adoption of a distinct legal liability threshold for a long time, and the proposed framework certainly does not render it less demanding to grasp. Altogether, even if a competition agency or court recognizes that a deterioration in quality has taken place, it would still have to engage in exceptionally intricate assessments about whether the market's exit mechanism is working properly. However, the proposed analysis affords one important benefit over other attempts to rationalize the Commission's findings. It enables us to see that exit and voice, long supposed to be contrary to, or at least independent of, one another, are profoundly significant in the ways in which they interact: that they are intertwining mechanisms that push the interplay of demand and supply ahead.

V. THE SIGNIFICANCE OF LOYALTY FOR VOICE TO BE EFFECTIVE

The relationship between exit and voice set out so far can be clarified further if the concept of loyalty is taken into account. Loyalty—a feeling of attachment

[139] Kokkoris, op. cit. *supra* note 4.
[140] Kuenzler, op. cit. *supra* note 20, at 187–193.

by a consumer to a firm of which they are a customer—may suspend exit such as when someone who has always purchased Pepsi will not aspire to buy Coke even if the former's recipe has changed. Loyal consumers are more likely to resort to voice—even if switching *is* possible—to the extent that they identify with the product or service and aim to help to improve it.[141] Search engine users who feel strongly about quality adjustments are prone to be those who feel most fervently about the search engine's operation itself. Such attachment to the manufacturer's product is likely to intensify the firm's incentive to repudiate policies that their consumers oppose. A frequent manifestation of loyalty is brand loyalty, which becomes apparent precisely in the unwillingness of consumers to switch from one brand to another, even when the available substitutes are better, cheaper, or within easier reach. This aspect of loyalty is becoming increasingly essential in data-driven economies as well. Importantly, the Commission observed in *Google Search (Shopping)* that 'because of the strength of the Google brand, users trust in the relevance of search results provided by Google. Consequently, [...] a significant number of users are unlikely to multi-home even if Google were to degrade the quality of its general search service'.[142] As users' brand loyalty continues to grow, the switch from one ecosystem to another will become less likely, with the implication that consumer influence reduces to voice. This view is clearly reflected in the Commission's view towards self-favouring when it remarked; 'because of the infrequency of user multi-homing and the existence of brand effects [...], Google could alter the quality of its general search service to a certain degree without running the risk that a substantial fraction of its users would switch to alternative general search engines'.[143] Where customer loyalty is key, quality-conscious users are less likely to switch. Indeed, they are most likely to stay on with the deteriorating product or service longer than they otherwise would, despite the availability of alternative options. The most practicable path for improving quality, then, is to increase the consumer's ability to employ voice, that is, to create effective avenues for consumers to signal their dissatisfaction with the firm when they are less willing to switch and product quality declines. Note that this relationship between loyalty and exit suggests that depending on the legal standard put in place, the consumer's voice will be more or less functional. In concentrated marketplaces, the consumer's voice may be put to use in a purposeful manner only when voice is rendered available as an institutional channel for achieving the ends that loyal consumers request.[144] Voice is thus most valuable when the law puts in place a mechanism that will increase the scope and effect of the consumer's disagreement with the firm, and so works to bolster the rationale for quality competition to prevail.

[141] Hirschman, op. cit. *supra* note 11, at 76–86 (consumers may exhibit loyal behaviour silently but Hirschman conceives of loyalty more as an issue of holding exit at bay).
[142] Case AT.39740, *Google Search (Shopping)*, para 312.
[143] Ibid., para 324.
[144] See Hirschman, op. cit. *supra* note 11, at 80–82.

Hence, loyal behaviour by the consumer points to an additional benefit of voice that is frequently neglected when we contemplate only the *private* inconveniences the consumer sustains due to their own decision (not) to switch. Above all, loyal behaviour by the consumer may be rationalized by the expectation that as a result of the consumer's switching the *overall* quality level of goods and services in a market—not just the quality of the product in question—would also suffer. In most standard consumer goods markets, customers of a particular (branded) good will not be concerned about setting off through their switching an additional quality deterioration with respect to the remainder of the market's available goods. But in data-driven marketplaces, high concentration and declining profit margins within firms may cause market leaders to underinvest in quality, and the market leader's bigger and more diverse user base will cause smaller rivals to also reduce quality, lowering quality standards across the market. The consumer's behaviour, under such circumstances, has the potential to determine to a large extent the quality level of the market's general backdrop.[145]

Loyal behaviour by consumers who at the same time are conscious of the likely effects of their switching may therefore prevent the market's overall quality level from declining. And users care about the market's quality level as long as the quality of the firm's service is important to them even after they decide to switch.[146] In data-driven marketplaces, most consumers continue to be customers of the same firm regardless of whether they switch. Online services rendered to users by dominant platforms give rise to externalities imposed on other services or users so that the consumption experience of one service by a user will have an effect on the consumption experience of other services or users. An example are complementary services offered by search engine operators that simultaneously provide email, maps, shopping applications, and so forth, whose quality may deteriorate at the same time as the quality of the platform's main services also decline. Here, switching will fail to enable users to cease being part of the respective market on which the declining product manufacturer operates. If a consumer makes use of a price comparison website operated by a dominant search engine platform of which they have come to disapprove, they can switch to another search engine but they cannot avoid being displeased as a user at a price comparison website that continues to operate based on a product offered by a declining search engine platform.

The Commission's treatment of self-favouring therefore also seems to work to preserve the firm's own value in the loyal behaviour of their users, which in turn may afford a benefit to the market's overall quality level. While exit typically must be seen as providing a strong incentive to the declining firm to recover from a loss in quality, and the exiting customer is no longer

[145] Ibid., at 98–105.
[146] Ibid.

concerned about the product or service after they have switched, in data-driven marketplaces users must ordinarily continue to be apprehensive about the product's quality. If users of a dominant search engine switch, they will remain at least to some extent consumers of the firm's output, or will keep being affected by the external effects that this output creates in the market as a whole. Consumers will then have an interest in playing a part in the recovery of the services of the firm from which they are considering exiting, even if only indirectly, through intensified administrative practice.

All of this renders plain the usefulness of adapting Hirschman's framework for the present purposes. While exit normally is cast as the authoritative paradigm to improve market efficiency, in data-driven marketplaces, there often is increased pressure for quality to deteriorate so that voice, as an additional mechanism, compels firms to adjust. Giving voice to consumers through intensified administrative practice then is closely intertwined with affording consumers an exit option by way of market self-correction; addressing declines in quality through voice will play a part in relation to those (aspects of) goods and services where the results of poor performance generally are viewed as being intolerable. Even if competition is lively for such goods and services (as may be the case in some search engine markets), the presence of intensified administrative practice bears witness to the existence of a strong public concern to avoid disagreeable consequences of quality deteriorations.[147] Conversely, in the absence of public opinion that the maintenance of a high level of quality cannot be left to the market's forces, exit is viewed as the predominant mechanism for consumers to steer the economy into a broader range of choices and back to the production of more effective quality improvements; as a result, the consequences of diverging quality are tolerated from the beginning. And voice also tends to play a role where consumers are uncertain about the quality of goods and services, or are subordinate in this regard to the supplier. Exit, on the other hand, plays a part where consumers are thought to be adept at recognizing what they prefer. It is precisely the former concern that features prominently in search engine markets. As has been recognized by Sergey Brin and Lawrence Page, '[s]ince it is very difficult even for experts to evaluate search engines, search engine bias is particularly insidious. ... For example, a search engine could add a small factor to search results from "friendly" companies, and subtract a factor from results from competitors. This type of bias is very difficult to detect but could still have a significant effect on the market. Furthermore, advertising income often provides an incentive to provide poor quality search results. ... [W]e believe the issue of advertising

[147] This may also be the case in traditional industries. For instance, where concerns about health and safety are key, such as with air transportation, pharmaceuticals, education, or in relation to complex technological products, public regulation is generally present. In data-driven marketplaces, these concerns are pronounced because markets tend to tip and quality deteriorations are much more difficult to judge from the point of view of the consumer than variations in price.

causes enough mixed incentives that it is crucial to have a competitive search engine that is transparent . . .'.[148] In this sense, the juxtaposition of voice and exit also reflects an institutional concern that the emphasis for the search engine market's functioning is not solely on the consumer but also on the producer that sometimes ought to be given as much information as possible about its own performance rather than simply having disgruntled customers switch back and forth between several equally disappointing suppliers.[149] Voice can then be demarcated from exit as a type of competition that is meaningful when there are vital public demands to cure an insufficiently appreciated problem. In that case, the employment of voice, rather than of exit, is to be given increased attention.

VI. CONCLUSION

Legal doctrine has long tried to articulate a consistent rationale for a baseline standard that may fit a dominant search engine's preferential treatment of its own related services into the CJEU's framework for leveraging market power. Conventional economic doctrine has put an emphasis on the consumer's ability to exit but this institutional arrangement, which is important as long as the market's structure is competitive, may not work sufficiently in the digital economy where quality competition is predominant and firms are in a position to maximize output at the expense of quality. Along the way, an unexpected institutional arrangement—affording consumers the ability to voice their concerns towards the firm—not only becomes more significant but is disposed to be progressively undervalued. Appreciating voice as a useful instrument for sustaining quality, however, requires competition law doctrine to afford consumers an opportunity to govern markets from within a particular segment rather than simply through switching between segments, and thus crucially depends on the design of such institutional avenues of influence that enable the transmission of consumers' criticisms most efficiently. To this end, voice is essentially put into effect by competition agencies and courts, which continually apply the law to new situations. This article has shown that the European Commission's framing of the practice of self-favouring has essentially achieved this goal for search engine markets. The Commission's view affords consumers an insider position with respect to a dominant search engine's services, while exit would demote the bulk of consumers to the stance of outsider. Voice, in this way, may constitute a unique path of influence

[148] Brin & Page, op. cit. *supra* note 62, at 3832.

[149] Hirschman, op. cit. *supra* note 11, at 26–29. These issues are of growing concern in the US as well, although the FTC's approach to a dominant search engine's practice of self-favouring has been much more lenient in the past, see Fiona Scott Morton *et al.*, *Committee for the Study of Digital Platforms—Market Structure and Antitrust Subcommittee* (Chicago, 2019), at 8, 11–13, 35–38, 40, 63–65.

for consumers who associate their loyalty towards the firm with decision-making, avenues of influence, and the governance of markets, taking the form of an institutional channel of communication for consumers to express their dissatisfaction when they experience difficulty in doing so. To this extent, much of the economic theory that views exit as the predominant mechanism for steering commerce into a broader range of choices and back to the production of better product offerings omits an account of the consumer as helping to shape the market's backdrop and enabling the firm to restore its initial quality advantage over rivals.

However, voice may be viewed not simply as a distinct theory of harm for competition agencies and courts to apply but may also justify an account that authorizes competition agencies to impose behavioural remedies that make consumers' voices heard effectively by digital platforms. In *Google Search (Shopping)*, rather than setting out a distinctive remedial package, the Commission confined itself to inflict upon Google the obligation to 'ensure that Google treats competing comparison shopping services no less favourably than its own comparison shopping service within its general search results pages ... irrespective of whether Google chooses to display a [separate] Shopping Unit or another equivalent form of grouping links to or search results from comparison shopping services'.[150] While the adoption of an open-ended remedial approach is uncontested in academic literature,[151] Article 7 (1) of Regulation 1/2003 stipulates that any remedy must be effective in bringing an infringement of Article 102 TFEU to an end.[152] Here, the practice of self-favouring may present distinctive challenges to competition agencies and courts, as several commentators and practice groups have pointed out in response to Google's chosen remedy. Specifically, Google implemented an arm's-length auction mechanism for every website to bid for display places presented in a separate Shopping Unit at the top of the general search results page. The displayed results include both direct links to merchants' products and to comparison shopping websites (including Google Shopping) and any website participates in the auction in the same way. Although this mechanism formally complies with the principle of equal treatment, Google's participation in the auction as an independent unit that has to ensure its individual profit and the display of direct product links in effect results in upward pricing pressure on competitors' auction bids, enabling Google to extract sizeable margins away from rivals and making it more likely for consumers to click

[150] Case AT.39740, *Google Search (Shopping)*, para 699.

[151] For an overview see Bo Vesterdorf & Kyriakos Fountoukakos, An Appraisal of the Remedy in the Commission's Google Search (Shopping) Decision and a Guide to its Interpretation in Light of an Analytical Reading of the Case Law, 9 *Journal of European Competition Law & Practice*, 3 (2018), pointing out that an undertaking's right to receive commercially reasonable, market-based compensation for supplying rivals with a valuable input is consistent with the case law.

[152] Regulation (EU) 1/2003 of 16 September 2002, OJ 2003 L1/1.

on merchants' websites rather than on comparison shopping websites' links. What is more, the auction mechanism itself is alleged to create a distorting contest between large retailers who want to be placed visibly on Google's Shopping Unit, squeezing out smaller ones, and depriving consumers of the benefit of a thriving comparison shopping market based on 'relevance' (for example, on the scope of products and services covered, the inclusion of consumers' ratings or reviews, and on other nonmonetary parameters such as the capability of products, and so forth).[153] This may appear to argue for competition agencies to ensure that the remedy does not simply comply with the formal principle of equal treatment but that it will amount to the same effect in practice.[154] Similarly, but beyond the scope of this article, the idea of voice may call for stronger *ex ante* consumer law protection measures in digital markets. A case in point is the recent endorsement in the EU of the rules set out in Regulation 2019/1150 to provide appropriate incentives to promote fairness and transparency, especially as regards the ranking of corporate website users in the search results generated by online search engines.[155] These rules require online search engines to disclose, among other things, in an easily understandable and accessible manner, the main parameters determining their rankings, including the criteria used if a website's own offers are treated differently from those of other corporate website users. While it remains unclear whether consumers themselves will be able to enforce direct claims from these rules, the establishment of a competitive, fair, and transparent online ecosystem is fundamentally aimed at improving consumers' choice and welfare.[156] Yet, if product quality is a key competitive concern in the digital economy, such rules may hardly be seen as a defence to a dominant search engine's opaque practice of self-favouring, but they may nevertheless point to a willingness of market regulatory rulemakers to establish some limiting principles for a dominant undertaking's liability in offering ranking and selection algorithms.[157]

[153] See Bureau Européen des Unions de Consommateurs AISBL, *Consumer Concerns with Google's Non-Compliant Remedy in Antitrust Shopping Case* (2019), <https://www.beuc.eu/publications/beuc-x-2019-020_google_non-compliant_remedy_in_antitrust_shopping_case.pdf> accessed 15 November 2019; Andres Caro, Leveraging Market Power Online: The Google Shopping Case, 17 *Competition Law Journal*, 49 (2018).

[154] In this direction Jacques Crémer, Yves-Alexandre de Montjoye & Heike Schweitzer, op. cit. *supra* note 128, at 67–68 arguing that where self-favouring has significantly benefited a platform or its subsidiary in improving its market position, it may be necessary for the remedy to ensure that disadvantaged competitors may regain strength by compensating them for their reduced visibility in the past. In the present case, alternatives might consist in price caps or the exclusive promotion of organic search, whereby possible chilling and free-riding effects would have to be balanced against exclusionary, extraction, and leveraging effects.

[155] Regulation (EU) 2019/1150 of 20 June 2019, OJ 2019 L 186/57.

[156] Ibid., paras 3–4, 8, 24, 26, 30.

[157] See Nicolo Zingales, Google Shopping. Beware of 'Self-Favouring' in a World of Algorithmic Nudging, 2 *Competition Policy International*, 2 (2018).

Taken as a whole, this does not suggest that competition policy should solely (or even predominantly) rely on voice. A propensity towards exclusive resort to one mode or another can scarcely do justice to the distinctive characteristics of each, let alone to their application to particular market conditions. As Hirschman himself concludes, the distinction between exit and voice 'does not come out with a firm prescription for some optimal mix of exit or voice, nor does it wish to accredit the notion that each institution requires its own mix that could be gradually approached by trial and error'.[158] But the fact that voice sometimes may bring about improved market outcomes ought not to preclude us from appreciating its qualities. To this extent, Hirschman's frame is most suitable for deepening our sense of how data-driven marketplaces operate.

[158] Hirschman, op. cit. *supra* note 11, at 124.